



**Billing Code 4333–15**

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**[FWS–R4–ES–2018–N054; FXES11130400000C2-156-FF04E00000]**

**Endangered and Threatened Wildlife and Plants; Draft Recovery Plan for Neosho Mucket**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of availability and request for public comment.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, announce the availability of the draft recovery plan for the endangered Neosho mucket. The draft recovery plan includes specific recovery objectives and criteria that must be met in order for us to delist this species under the Endangered Species Act. We request review and comment on this draft recovery plan from local, State, and Federal agencies; Tribes; and the public.

**DATES:** In order to be considered, comments on the draft recovery plan must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES: *Obtaining Documents:*** If you wish to review this draft recovery plan or a list of the references cited in this notice, you may obtain copies by contacting Melvin Tobin, U.S. Fish and Wildlife Service, Arkansas Ecological Services Field Office, 110 S. Amity Road, Suite 300, Conway, AR 72032; tel. (501) 513–4473; or by visiting the Service’s Arkansas Field Office website at <http://www.fws.gov/arkansas-es>.

***Submitting Comments:*** If you wish to comment on the draft recovery plan, you may submit your written comments by one of the following methods:

*U.S. mail or hand-delivery:* Arkansas Ecological Services Field Office (address above).

*Fax:* 501–513–4480, attn. “Neosho Mucket Draft Recovery Plan Comment.”

*Email:* [chris\\_davidson@fws.gov](mailto:chris_davidson@fws.gov). Please include “Neosho Mucket Draft Recovery Plan Comment” in the subject line.

For additional information about submitting comments, see **Request for Public Comments**, below.

**FOR FURTHER INFORMATION CONTACT:** Melvin Tobin, by telephone at 501–513–4473, or via email at [melvin\\_tobin@fws.gov](mailto:melvin_tobin@fws.gov).

**SUPPLEMENTARY INFORMATION:** We, the U.S. Fish and Wildlife Service (Service), announce the availability of the draft recovery plan for the endangered Neosho mucket (*Lampsilis rafinesqueana*). The draft recovery plan includes specific recovery objectives and criteria that must be met in order for us to delist this species under the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*). We request review and comment on this draft recovery plan from local, State, and Federal agencies; Tribes; and the public.

### **Background**

The Neosho mucket is a freshwater mussel. The shell is up to 5 inches (18 cm) long. The species is sexually dimorphic, as is typical of *Lampsilis*. The mantle lure is well developed in young females 2–5 years of age, but may be less developed in older individuals (Oesch 1984; McMurray *et al.* 2012).

Neosho mucket glochidia (larvae) are obligate parasites on smallmouth bass (*Micropterus dolomieu*), largemouth bass (*Micropterus salmoides*), and spotted bass (*Micropterus punctulatus*) (Barnhart and Roberts 1997; Service 2005). The Neosho mucket spawns in late April and May, and female brooding occurs May through August. Little is known about habitat requirements of Neosho mucket. It is associated with shallow riffles and runs comprising gravel substrate and moderate-to-swift currents. The species is most often found in areas with swift current, but in Shoal Creek and the Illinois River it prefers nearshore areas or areas out of the main current (Oesch 1984; Obermeyer 2000). The Neosho mucket does not occur in reservoirs lacking riverine characteristics (Obermeyer *et al.* 1997b).

The ESA specifies five factors for listing species as endangered or threatened. The Neosho mucket is threatened primarily by the destruction, modification, or curtailment of its habitat or range (Listing Factor A of the ESA). Specific threats include impoundment, sedimentation, chemical contaminants, mining, the inadequacy of existing regulatory mechanisms, population fragmentation and isolation, invasive nonindigenous species, and water temperature. Climate change (Listing Factor E) is also likely to have adverse effects on the species due to alteration of hydrologic cycles of rivers that support Neosho mucket, but the extent or magnitude of this threat has not been quantified at this time. We determined that other existing regulatory mechanisms were inadequate to reduce these threats (Listing Factor D).

As a result of these threats, the Neosho mucket was listed as endangered on the Federal List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations (50 CFR 17.11) on September 17, 2013 (78 FR 57076). A total of 483 river miles (777 river kilometers) in seven rivers and one creek (Elk, Fall, Illinois, Neosho, Spring, North Fork Spring, and Verdigris Rivers and Shoal Creek) has been designated as critical habitat for the Neosho mucket (80 FR 24692, April 30, 2015). Critical habitat as set forth in 50 CFR 17.95(f) is located in Benton and Washington Counties, Arkansas; Allen, Cherokee, Coffey, Elk, Greenwood, Labette, Montgomery, Neosho, Wilson, and Woodson Counties, Kansas; Jasper, Lawrence, McDonald, and Newton Counties, Missouri; and Adair, Cherokee, and Delaware Counties, Oklahoma.

## **Recovery Plan**

Section 4(f) of the ESA requires the development of recovery plans for listed species, unless such a plan would not promote the conservation of a particular species. Recovery plans describe actions considered necessary for conservation of the species, establish recovery criteria, and estimate time and cost for implementing recovery measures. Section 4(f) of the ESA also requires us to provide public notice and an opportunity for public review and comment during recovery plan development. We will consider all information presented during a public comment period prior to approval of each new or revised recovery plan. We and other Federal agencies will take these comments into account in the course of implementing approved recovery plans.

The goal of this recovery plan is to ensure the long-term viability of the Neosho mucket in the wild to the point that it can be removed (“delisted”) from the Federal List of Endangered and Threatened Wildlife. To achieve this goal, it will be necessary to establish naturally self-sustaining populations with healthy long-term demographic traits and trends. We are defining the following reasonable delisting criteria based on the best available information on this species. These criteria will be reevaluated as new information becomes available:

#### *Recovery Criteria*

The Neosho mucket will be considered for delisting when:

- (1) Two of four targeted river basins (Illinois, Verdigris, Neosho, and Spring River basins) contain viable populations with positive or stable basin-wide population trend, as evidenced by a population number measured with sufficient precision to detect change of  $\pm 25$  percent (Factors A, D, and E);

(2) Spatial distribution of natural or stocked aggregations distributed throughout the basin is sufficient to protect against local catastrophic or stochastic events (Factors A and E);

(3) All life stages are supported by sufficient habitat quantity and quality (see Primary Constituent Elements in the *Species Biological Report for Neosho Mucket*) and appropriate presence and abundance of fish hosts necessary for recruitment (Factors A, D, and E); and

(4) Threats and causes of decline have been reduced or eliminated (Factors A, D, and E).

A viable population is defined as a wild, naturally reproducing population that is able to persist and maintain sufficient genetic variation to evolve and respond to natural changes and stochastic events without further human intervention. Viable populations are expected to be large and genetically diverse, include at least five age classes with at least one cohort  $\leq 7$  years of age, and recruit at sufficient rates to maintain or increase population size.

### **Request for Public Comments**

We request written comments on the draft recovery plan. We will consider all comments we receive by the date specified in **DATES** prior to final approval of the plan.

Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal

identifying information from public review, we cannot guarantee that we will be able to do so.

**Authority**

The authority for this action is section 4(f) of the Endangered Species Act, 16 U.S.C. 1533 (f).

Dated: August 10, 2018.

**Mike Oetker,**

*Acting Regional Director, Southeast Region.*

[FR Doc. 2018-17753 Filed: 8/16/2018 8:45 am; Publication Date: 8/17/2018]